

Work Order ID 144493

April 19, 2016 11:03:25 AM

144493

Page 1

Item ID: D4464-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fuel Tank Assembly
 Start Date: 4/29/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 5/30/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: SU Date: 20160418 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4464	H								

100 Weld per dwg A/R Aluminum rod Batch: 4130137 0.00

100

Large Fab

Memo

3.19

Large Fab

1- Weld D4023-3 cap as per dwg D4464

Achtung!
 Vor Einbau Sicherungsstift herausnehmen
Attention:
 remove safety pin before installation
Atenção!
 Remova o pino de segurança antes de montar

DAS
 43
 9-89

MAY 05 2016

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

QC

Memo

0.00

Quality Control

DAS
 34
 9-89

MAY 05 2016

112

0.00

112

Small Fab

Memo

1.15

Small Fab

1- Wet install baffles to front and back panel using rivet and Proseal as per dwg
 A/R Proseal Batch: 134039

DAS
 36
 9-89
 16/05/2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
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Accept

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Revision ID:

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Cust Item ID:

Required Date: 5/30/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

114

QC5- Inspect part completeness to step on W/O

0.00

114

QC

Memo

0.02

Quality Control

EP
16-05-05

DQA: _____ Date: _____



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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Weld per dwg A/R Aluminum rod Batch: <u>4130137</u>	0.00				<u>1</u>			
120									
Large Fab	Memo	2.42							
Large Fab	1- Weld D4001-1 and D4000-5 onto D4463-1 Top								

Memo

2.42

1- Weld D4001-1 and D4000-5 onto D4463-1 Top

2- Weld D3999-041/-043 doubler, ensure doubler and angle holes line-up for D4000-047

Transfer drill and c/sink D4975-1 bracket to bottom bracket, wet install as per dwg

Proseal 890B Batch: 134039

3- Weld D4000-043 and D4000-045 on tank as per dwg.

4- Instal D4000-9 grommets as per dwg, Weld D4463-3 aft end as per dwg, locate D4000-1 and wet install with rivets as per dwg. ***D4000-1 FLAT SURFACE MUST BE INSTALL UPWARDS AS PER DWG***

Proseal 890B Batch: 1340395- Install hinge wet with proseal as per dwg
A/R Proseal 890B Batch: 134039

6-Weld D4463-7 fwd end

PURGE INSIDE OF TANK

7-Weld top D4463-1 using DT9811 and DT9810

DAS
43
9-89

MAY 10 2016

DAS
36
9-89

16/05/09



Work Order update only

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework Scrap Use-as-is Suspected Unapproved		AGAINST DEPARTMENT/PROCESS Skid-tube Machining Thermoforming Large Fab Cross tube Small Fab Finishing Composite Water Jet Prod. Eng. Coord. Rec/Store/Packaging Supplier Engineering Quality Other					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval	
Description Work Order Deviation				Disposition					
								Completed By	
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Root Cause Environment Design Doc/Data Equip/Tooling Handling/Pre Material Internal Transport Tribal Knowledge LOA Substation Past Expiry Date Misidentified No Re-verification Operator Offset/Setup Supplier Training Use for Testing Poor Information Rushing Product Improvement Process Improvement Manufacturing Process Past Due		FAULT CATEGORY Pressure/Forced Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Wave/Twist in Tube Marks/Chatter Temperature/Cure Set-up BOM/Route Broken/Damage/Defect Inspection Incomplete/Unqualified Contamination Countersink Cut Too Short Instructions Incomplete/Unclear Drill Holes Power Loss/Surge Folio/Program Grain Weld Wrong Stock Pulled Out of Sequence Off-set Mislabeled Fit/Function Misaligned/off center Positioned Wrong Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Drawing Finish Misread Turning Sequence							
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	PURGE INSIDE OF TANK								
123	QC5- Inspect part completeness to step on W/O	0.00							
123									
QC	Memo	0.02							
Quality Control	***Pressure Test as per dwg D4464*** N/A								
140	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
140									
QC	Memo	0.00							
Quality Control									

① 16-05-11

PD

① 16-05-11

PD

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Page 6

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00							DAS 41 9-89
150									
HandFinish	Memo	1.22							
Hand Finishing	1- Alodine on tank. No alodine inside								16-5-12
160	QC7-Inspect Chemical Conversion Coat	0.00							DAS 9 9-89
160									
QC	Memo	0.01							
Quality Control									
164		0.00							DAS 36 9-89
164									
Small Fab	Memo	1.48							
Small Fab	1- Brush Proseal 890A on all internal sheet metal folds Proseal 8990A Batch: <u>M134500</u>								
	2- Assemble as per dwg and for D4577-041/-3/-5 access panels install wet with proseal 890B								
	A/R Proseal 890B Batch: <u>M134500</u>								

DQA: _____ Date: _____



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Run Start ***NR1***

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169

QC5- Inspect part completeness to step on W/O

0.00

169

QC

Memo

0.02

Quality Control

① 16-05-13 PD.

170

0.00

170

SprayPaint

Memo

1.05

Spray Painting

MASK PROIOR PRIME AND PAINT AS PER DWG

PRIME TEMPO GREY AS PER DWG AND QSI

PRIMER BATCH: 134188

PAINT FLAT GREY AS PER DWG AND QSI

PAINT BATCH: 133641

DAS

41

9-89

1 16-5-16

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OTHER : ☐																																																															

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[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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OTHER : ☐																					

Work Order ID 144493

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144493

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Item ID: D4464-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Fuel Tank Assembly

Stop ***NS2***

Start Date: 4/29/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 5/30/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Identify as per dwg & Stock Location: _____	0.00							
210									
Packaging	Memo	0.01							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.10							
Quality Control									

MCS MAY 18 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Picklist Print

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Page 1

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 11.11.23 NEW ISSUE DD VERF:EC IPP REV:B
12.03.08 AS PER DWG REV.B DD VERF:EC IPP REV:C 12.04.24
ECN 12-571 DD VERF:EC IPP REV:D 13.10.30 DWG
REV PE1 DD VERF:JLM IPP REV:E 14.06.13 AS PER DWG
REV.E DD VERF:JLM IPP REV:F 14.07.21 AS PER DWG REV.F DD
VERF:JLM IPP REV:G 15.01.15 AS PER DWG REV.G DD
VERF:JLM IPP REV:H 15.03.04 AS PER DWG REV.H9 DD
VERF:JLM IPP REV:I 15.06-17 AS PER DWG REV.H DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS20470AD4-6		Purchased	No				Each	2,198.000		8			
MS20470AD4-6									**				
RIVET													

Location	Loc Qty	Loc Code
CCK004	1566	
m134360	1566	
GA	471	
m131618	93	
m133077	378	
ST310	161	
m133077	161	

D3997-5

Manufactured No

190 Each 12.0000 2 2

D3997-5

Placard

Location	Loc Qty	Loc Code
ST069	12	
137473	6	
143814	6	

MAY 17 2016

DAS
36
3-89

16/05/07 DAS 36 3-89

Picklist Print

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Page 2

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D3997-11
D3997-11
Placard

Manufactured No

190 Each

9.0000

1 1

DAS
6
9-89

Location

Loc Qty

Loc Code

ST069

9

127110

9

f

Manufactured No

190 Each

8.0000

1 1

DAS
6
9-89

Location

Loc Qty

Loc Code

ST069

8

129866

8

f

Manufactured No

190 Each

9.0000

1 1

DAS
6
9-89

Location

Loc Qty

Loc Code

ST069

9

127111

9

f

Manufactured No

190 Each

8.0000

1 1

DAS
6
9-89

Location

Loc Qty

Loc Code

ST069

8

127112

8

f

MAY 17 2016

D3997-43
D3997-43
Placard

Picklist Print

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Page 3

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D3999-7

Manufactured No

120

Each

6.0000

1 1

✓ *D3999-7*

Corner

**B130069 → 1 43 MAY 04 2016
9-89

Location

Loc Qty

Loc Code

WA003

6

108621

3

130069

3

D4000-1

Manufactured No

120

Each

5.0000

1 1

D4000-1

Fuel Supply Fitting

** 16/05/09 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

5

128899

5

D4000-5

Manufactured No

120

Each

11.0000

1 1

✓ *D4000-5*

Fuel Tank Vent Fitting

**B130055 → 1 43 MAY 04 2016
9-89

Location

Loc Qty

Loc Code

WA003

11

107388

6

130055

5

D4000-9

Manufactured No

120

Each

30.0000

3 3

D4000-9

Grommet

** 16/05/09 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

30

123024

14

137219

16

D4000-045

Manufactured No

120

Each

0.0000

1 1

D4000-045

Fuel Pickup Fitting Assembly

3122673 (IX) ** 16/05/09 DAS 36 9-89

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Shop Packet Print

Page 3

Picklist Print

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Page 4

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4008-11 Manufactured No

120 Each 9.0000 1 1

D4008-11

Hinge Half

**

16/05/09 DAS 36 9-89

Location

Loc Qty

Loc Code

GA 129867

9 9

Manufactured No

190 Each 16.0000 1 1

D4008-041

D4008-041

Fuel Filler Splash Guard Assembly

**

MAY 17 2016 DAS 6 9-89

Location

Loc Qty

Loc Code

ST243 137305

16 16

Manufactured No

190 Each 11.0000 1 1

D4023-3

D4023-3

Cap And Flange

**B81898 → 1
B106700 → 1

MAY 04 2016 DAS 43 9-89

Location

Loc Qty

Loc Code

WA003 106700 120208 122537 129761 130907 132479 81898

11 1 1 3 2 1 2 1

Picklist Print

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Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4025-5

Manufactured No

190

Each

7.0000

1

1

D4025-5

Fuel Quantity Sender

MAY 17 2016

DAS
36
9-89

Location

Loc Qty

Loc Code

ST240

7

106832

1

127571

1

129924

3

132650

2

D4057-1

Manufactured No

120

Each

41.0000

3

3

D4057-1

Retaining Ring

16/05/09

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

41

107269

41

D4062-041

Manufactured No

190

Each

3.0000

1

1

D4062-041

Tank Support Assembly

DAS
36
9-89

MAY 17 2016

DAS
36
9-89

Location

Loc Qty

Loc Code

WA003

3

134301

3

D4125-1

Manufactured No

120

Each

5.0000

1

1

D4125-1

Fwd Sediment Bowl

****B130323→1**

DAS
43
9-89

MAY 04 2016

Location

Loc Qty

Loc Code

WA003

5

130323

1

133944

4

April 19, 2016 11:03:30 AM

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Picklist Print

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Page 6

Work Order ID: 144493

Parent Item: D4464-041

Parent Item Name: Fuel Tank Assembly

144493

D4464-041

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4125-3

Manufactured No

120

Each

4.0000

1

1

✓ *D4125-3*

Aft Sediment Bowl

**B130324 → 1 43 DAS

MAY 04 2016

Location

Loc Qty

Loc Code

WA003

4

130324

4

Manufactured No

120

Each

11.0000

2

2

D4404-5

D4404-5

Cushion, Fwd

**

MAY 19 2016

Location

Loc Qty

Loc Code

ST516

11

127570

1

133965

10

Manufactured No

112

Each

2.0000

1

1

D4462-1

✓ *D4462-1*

Baffle

**B134946 → 1 43 DAS

MAY 04 2016

Location

Loc Qty

Loc Code

WA003

2

134946

2

Manufactured No

112

Each

1.0000

1

1

D4462-3

✓ *D4462-3*

Baffle

**B130041 → 1 43 DAS

MAY 04 2016

Location

Loc Qty

Loc Code

WA003

1

130041

1

April 19, 2016 11:03:30 AM

Shop Packet Print

Page 6

Picklist Print

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Page 7

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4463-041

Manufactured No

120 Each

3.0000

1 1

DAS

✓ ***D4463-041***

Tank Top Assembly

****B134994 → 1 43 MAY 04 2016**
9-89

Location

Loc Qty

Loc Code

WA003

3

134994

3

D4463-3

Manufactured No

120 Each

3.0000

1 1

DAS

✓ ***D4463-3***

Tank Aft End

****B130066 → 1 43 MAY 04 2016**
9-89

Location

Loc Qty

Loc Code

WA003

3

123531

1

130066

2

D4463-5

Manufactured No

120 Each

18.0000

1 1

DAS

✓ ***D4463-5***

Tank Upper Cut Out

****B121024 → 1 43 MAY 04 2016**
9-89

Location

Loc Qty

Loc Code

WA003

18

106751

12

121024

6

D4463-7

Manufactured No

120 Each

1.0000

1 1

DAS

✓ ***D4463-7***

Tank Fwd End

****B121172 → 1 43 MAY 04 2016**
9-89

Location

Loc Qty

Loc Code

WA003

1

121172

1

Picklist Print

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Page 8

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4463-9

Manufactured No

112 Each

2.0000

1 1

DAS

✓ ***D4463-9***

Tank Back

B127452 → 1 **43 MAY 04 2016
9-89

Location

Loc Qty

Loc Code

WA003

2

127752

2

D4463-11

Manufactured No

112 Each

3.0000

1 1

DAS

✓ ***D4463-11***

Tank Front

B127699 → 1 **43 MAY 04 2016
9-89

Location

Loc Qty

Loc Code

WA003

3

127699

1

128253

2

D4463-13

Manufactured No

190 Each

1.0000

1 1

DAS

✓ ***D4463-13***

Tank Bottom

B129425 → 1 **43 MAY 04 2016
9-89

Location

Loc Qty

Loc Code

WA003

1

129425

1

D4577-041

Manufactured No

190 Each

4.0000

1 1

D4577-041

Fwd Access Panel Assembly

** 16/05/12 **36** 9-89

Location

Loc Qty

Loc Code

ST247

4

106703

2

137128

2

Picklist Print

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Page 9

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4577-1

Manufactured No

190

Each

3.0000

1

1

D4577-1

Rear Access Panel

**

16/05/12
DAS
36
9-89

Location

Loc Qty

Loc Code

ST247

2

137326

2

WA002

1

134973

1

Manufactured No

190

Each

4.0000

1

1

D4577-3

D4577-3

Middle Access Panel

**

16/05/12
DAS
36
9-89

Location

Loc Qty

Loc Code

ST247

3

106697

1

137126

2

WA003

1

128100

1

Manufactured No

190

Each

8.0000

1

1

D4968-1

D4968-1

Side Cushion

**

DAS
36
9-89

Location

Loc Qty

Loc Code

ST400

8

120927

1

143723

7

MAY 17 2016

Picklist Print

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Page 10

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

D4975-1

Manufactured No

Each

4.0000

1

D4975-1

Bracket

16/05/09

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

2

131674

1

135338

1

WA003

2

120928

1

128259

1

Purchased

No

Each

342.0000

24

Location

Loc Qty

Loc Code

FP001

8

m133686

2

m134055

6

ST350

334

m134055

34

m134502

300

Purchased

No

Each

27.0000

5

Location

Loc Qty

Loc Code

ST349

25

m132680

25

ST350

2

m127044

2

AN3-5A

AN3-5A

Bolt

AN3H5A

AN3H5A

Bolt

DAS
36
9-89

4-89 DAS
6

May 17 2016

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Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-7A

Bolt

Purchased

No

Each

366.0000

4

Location

Loc Qty

Loc Code

over003

350

m133694

100

m134606

250

ST349

16

m132763

10

m132803

6

MAY 17 2016

DAS
36
9-89

MS20426AD4-4

Purchased

No

Each

4,795.000

4

MS20426AD4-4

Rivet

Location

Loc Qty

Loc Code

GA

2102

125445

2102

ST312

2693

m132536

2693

16/05/05

DAS
36
9-89

MS20470AD4-4

Purchased

No

Each

4,440.000

165

MS20470AD4-4

Rivet, Universal Head

Location

Loc Qty

Loc Code

CCK004

2069

M134574

2069

GA

1903

M133922

54

M134294

1849

ST310

468

M132803

468

16/05/05

DAS
36
9-89

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Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

MS2104213

Purchased

No

190

Each

1,723.000

4

4

MS2104213

Nut

Location

Loc Qty

Loc Code

FP001

100

m133790

100

GA

782

m133790

3

m134360

779

ST304

841

m134039

12

m134360

829

Purchased

No

190

Each

1,644.000

13

13

NAS1149D0332J

NAS1149D0332J

Washer

Location

Loc Qty

Loc Code

CA

6

m129682

6

FP001

4

m133988

4

GA

88

m132677

88

ST260a

1000

m134502

1000

ST264

546

m133988

546

DAS

6

9-89

DAS

6

9-89

MAY 17 2016

DAS

36

9-89

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* NAS1149D0316J

M134502

1X

16/05/17

Picklist Print

April 19, 2016 11:03:30 AM

Page 13

Work Order ID: 144493

144493

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 4/29/2016

Required Date: 5/30/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0363.I

Purchased

No

190

Each

2,065.000

24

24

NAS1149D0363.I

Washer

16/05/17
DAS
36
9-89

Location

Loc Qty

Loc Code

GA

583

m134055

583

ST260a

1000

m134606

1000

ST263

482

m134370

482

24

ITEM	QTY -041	PART NUMBER	DESCRIPTION
	X	D4464-041	FUEL TANK ASSEMBLY
1	2	D3997-5	PLACARD (AUX FUEL DRAIN)
2	1	D3997-11	PLACARD (LOADING)
3	1	D3997-17	PLACARD (STOWAGE)
4	1	D3997-29	PLACARD (WARNING)
5	1	D3997-43	PLACARD (EARTH)
6	1	D3999-7	CORNER
7	1	D4000-1	FITTING
8	1	D4000-5	FUEL TANK VENT FITTING
9	3	D4000-9	GROMMET
10	1	D4000-045	FUEL PICK UP AND STRAINER ASSEMBLY
11	1	D4008-11	TANK HINGE HALF
12	1	D4008-041	FUEL FILLER SPLASH GUARD ASSEMBLY
13	1	D4023-3	FUEL CAP AND FLANGE
14	1	D4025-5	FUEL SENDER
15	3	D4057-1	RETAINER
16	1	D4062-041	TANK SUPPORT
17	1	D4125-1	FWD SEDIMENT BOWL
18	1	D4125-3	AFT SEDIMENT BOWL
19	2	D4404-5	CUSHION, FWD
20	1	D4462-1	BAFFLE
21	1	D4462-3	BAFFLE
22	1	D4463-041	TOP TANK ASSEMBLY
23	1	D4463-3	TANK AFT END
24	1	D4463-5	TANK UPPER CUT OUT
25	1	D4463-7	TANK FORWARD END
26	1	D4463-9	TANK BACK
27	1	D4463-11	TANK FRONT
28	1	D4463-13	TANK BOTTOM
29	1	D4577-041	FWD ACCESS PANEL ASSEMBLY
30	1	D4577-1	REAR ACCESS PANEL
31	1	D4577-3	MIDDLE ACCESS PANEL
32	1	D4968-1	CUSHION, SIDE
33	1	D4975-1	ANGLE BRACKET
34	24	AN3-5A	BOLT
35	5	AN3H5A	BOLT
36	4	AN3-7A	BOLT
37	4	MS20426AD4-4	RIVET, CSK
38	165	MS20470AD4-4	RIVET, PANHEAD
39	8	MS20470AD4-6	RIVET, PANHEAD
40	4	MS21042L3	NUT
41	13	NAS1149D0332J	WASHER
42	24	NAS1149D0363J	WASHER

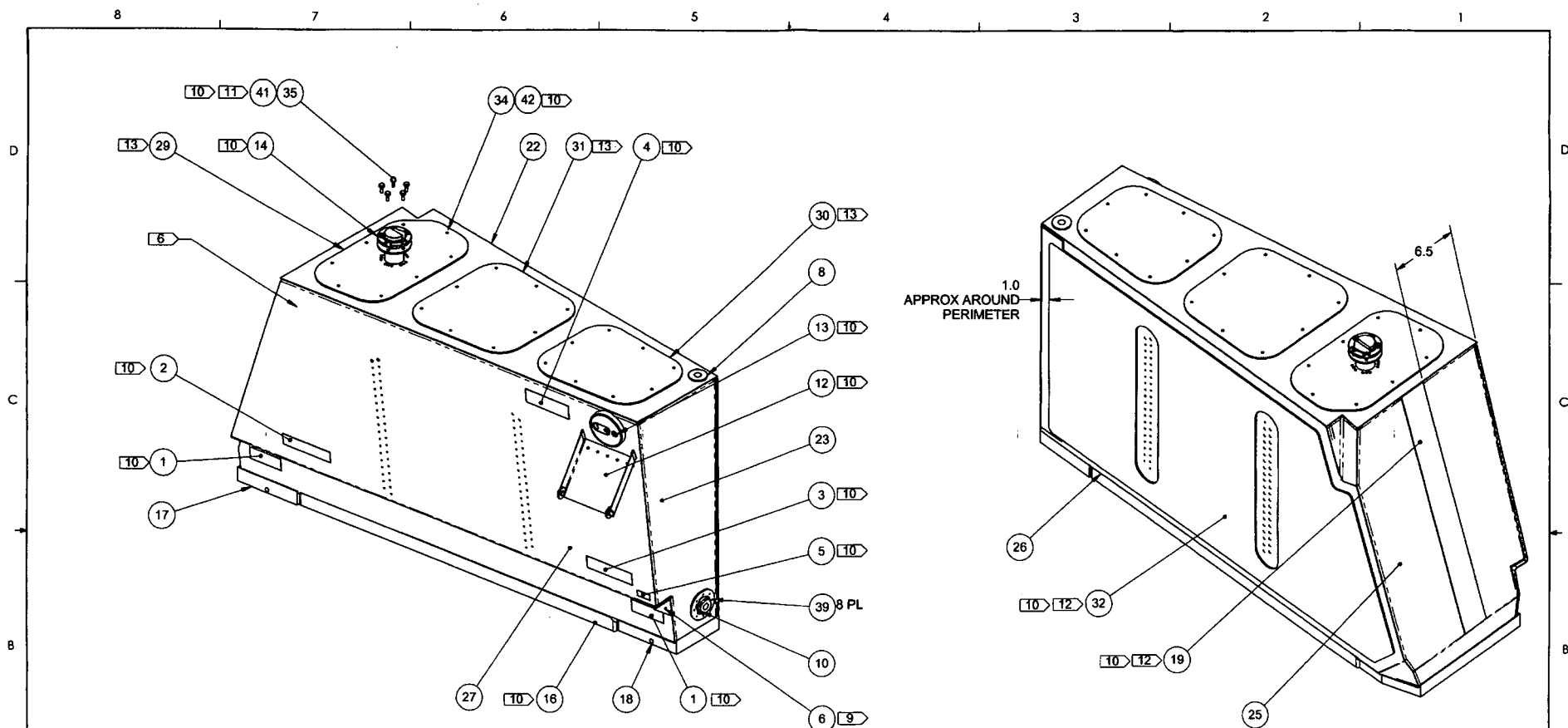
RELEASED
2015-06-18
ECN 15-5B3

H	REPLACED NOTE 8 (SHT 2), ADDED NOTE 14 (SHT 2), ADDED AUXILIARY VIEW (SHT 3), ADDED NOTE 15 (SHT 4), REPLACED NOTE 13 (SHT 5), SHT 4 WAS SHT 3, SHT 5 WAS SHT 4, REMOVED D4124-1 TABS & AN3-6A BOLTS, CHEMICAL CONVERSION COAT NOW AFTER WELDING (SHT 5), ADD AN3-7A BOLTS	CC	15.02.06
G	FINISH "FLAT GREY" WAS "GREY" (SHT 2); PICTORIAL UPDATE FOR D4000-1 & D4462-1	AP	14.12.05
F	AN3-5A WAS AN3C4A QTY. 24 (ZN D6-2) AN3H5A WAS AN3-5A QTY. 5 (ZN D7-2) MS20470AD4-6 WAS MS20426AD4-6 QTY. 8 (ZN B5-2) D4000-1 IS NO LONGER INSTALLED WITH COUNTERSUNK RIVETS UPDATE NOTE 10 ON SHEET 3	ML	14.06.27
E	UPDATED -041 WITH RE-DESIGNED D4463-3/-9/-11 AND D4462-1/-3. D4968-1 REPLACES D4404-5 ON TANK SIDE (ZN C3-2) REF NCR 13-3100 AN3-6A REPLACES MS35206-206 (ZN B8-2) NAS1149D0332J REPLACES 5 X NAS1149D0363J (ZN D7-2) REF PAR 12-217 D4975-1 REPLACES D3999-9 (ZN C3-2) REMOVED TAB D3999-11 AND MOVED D3997-43 PLACARD (ZN B6-5) UPDATED BILL OF MATERIALS REVISED ALL NOTES REMOVED SHEET 5	ML	14.05.13
D	ADDED NOTE RE HAND FORMING D4124-1, ZN A8-4.	DC	12.05.02
C	UPDATED -041 WITH RE-DESIGNED D4463-11/-13 REV. C PARTS, ZN B6-2. UPDATED -041 WITH RE-DESIGNED D4577-041/-3/-5 PARTS, ZN C6-2.	DC	12.03.27
B	UPDATED -041 WITH RE-DESIGNED PARTS. REMOVED D4463-13. ADDED D4577-041/-1/-5 ACCESS PANELS, ZN C6-2.	DC	11.12.14
A	NEW ISSUE. REF PAR11-117 & CAR 11-54.	DC	11.10.19
REV.	DESCRIPTION	BY	DATE
DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	CC		
CHECKED	AP	DRAWING NO.	REV. H
MFG. APPR.	DD	D4464	SHEET 1 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	15.02.06	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

20160419

SLA
144493

APPROVED



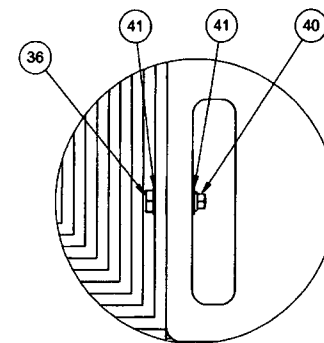
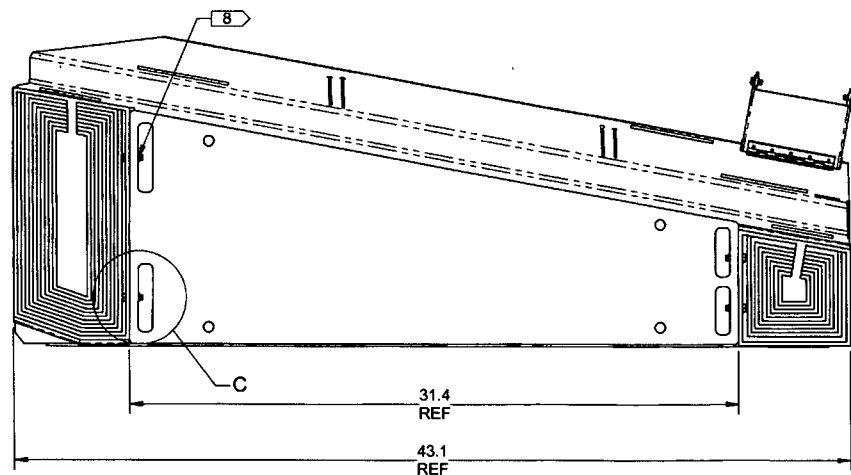
D4464-041 FUEL TANK ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME TEMPO GREY (4.2.1.3.2) PER DART QSI 005 4.2.1
PAINT FLAT GREY (4.2.2.3) PER DART QSI 005 4.2.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D350-794-141" USING D2729-1 RED DECAL
- 7) WEIGHT: 39.52 lbs
- 8) LPI AND PRESSURE TEST PER DART QSI 038 6.3
- 9) MASK PRIOR TO FINISH
- 10) INSTALL AFTER FINISH
- 11) LOCKWIRE BOLTS AFTER INSTALLATION PER AC 43.13 OR MS33540
- 12) INSTALL CUSHION USING CONTACT CEMENT. TRIM TO FIT IF REQUIRED
- 13) INSTALL D4577-041/-1/-3 ACCESS PANELS WET WITH PROSEAL P/S 890B.

RELEASED
2015-06-18

DESIGN	ML	DART AEROSPACE LTD	
DRAWN	CC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. H
MFG. APPR.	DD	D4464	SHEET 2 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	15.02.06	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



DETAIL C
SCALE 3X

D4464-041 FUEL TANK ASSEMBLY
AUXILIARY VIEW

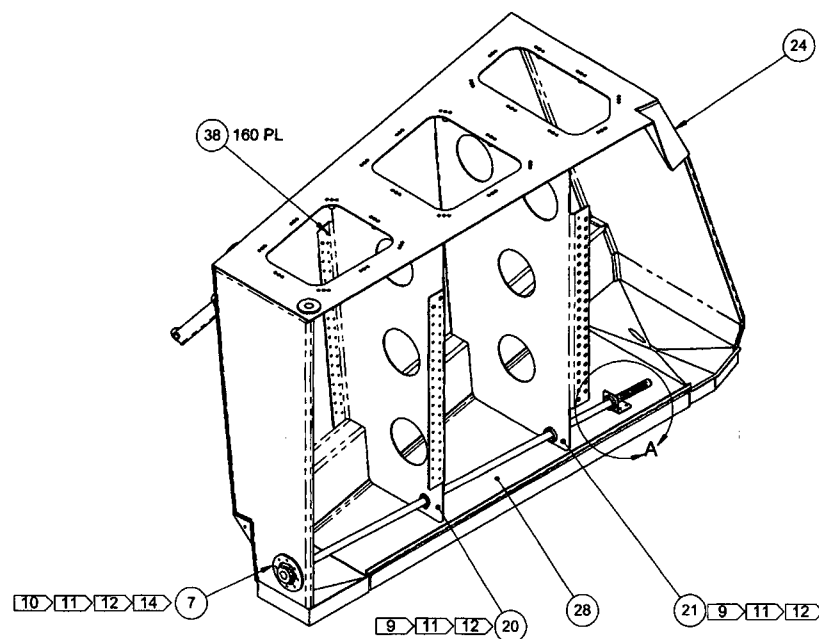
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) TRANSFER DRILL HOLES FROM D4125-1/-3 SEDIMENT BOWLS TO D4062-041 TANK SUPPORT ASSEMBLY

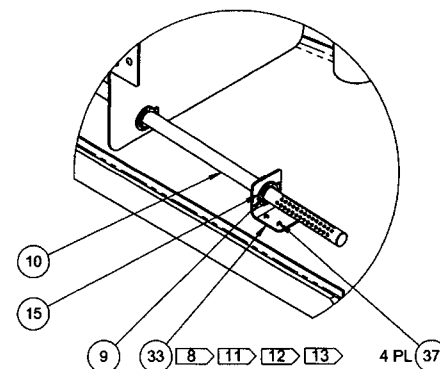
RELEASED
2015-06-18

APPROVED

DESIGN	ML	DART AEROSPACE LTD	
DRAWN	CC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. H
MFG. APPR.	DD	D4464	SHEET 3 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	15.02.06	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D4464-041 FUEL TANK ASSEMBLY 
D4463-9 TANK BACK REMOVED
TO SHOW INTERIOR DETAIL



DETAIL A
ROTATED FOR CLARITY
SCALE 2X

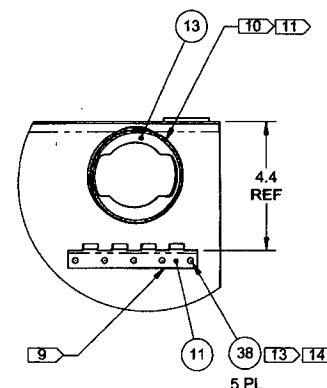
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) COAT FAYING SURFACES OF D4975-1 ANGLE BRACKET AND D4463-13 TANK BOTTOM WITH PROSEAL P/S 890B AND WET INSTALL MS20426AD4-4 RIVETS
- 9) COAT FAYING SURFACES OF D4462-1/-3 BAFFLES AND D4463-9/-11 TANK FRONT/BACK WITH PROSEAL P/S 890B AND WET INSTALL MS20470AD4-4 RIVETS
- 10) COAT FAYING SURFACES OF D4000-1 FUEL SUPPLY FITTING AND D4463-3 TANK AFT END WITH PROSEAL P/S 890B AND WET INSTALL MS20470AD4-6 RIVETS
- 11) FILLET SEAL THE INTERIOR OF THE TANK AROUND THE EDGE OF D4975-1 ANGLE BRACKET, D4462-1/-3 BAFFLES AND D4000-1 FUEL SUPPLY FITTING WITH PROSEAL P/S 890B
- 12) DOME SEAL ALL BUCKED ENDS OF RIVETS WITH PROSEAL P/S 890B
- 13) TRANSFER DRILL $\phi 0.128$ HOLES FROM D4975-1 ANGLE BRACKET INTO D4463-13 TANK BOTTOM AND COUNTERSINK HOLES $\phi 0.225 \times 100^\circ$ FROM THE OUTSIDE OF THE TANK
- 14) INSTALL D4000-1 FITTING WITH FLAT FACING UPWARDS
- 15) BRUSH PROSEAL 890A ON ALL INTERNAL SHEET METAL FOLDS

RELEASED
2015-06-16

APPROVED

DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	CC		
CHECKED	AP	DRAWING NO.	REV. H
MFG. APPR.	DD	D4464	SHEET 4 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	15.02.06	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



DETAIL B
ROTATED FOR CLARITY
SCALE 2X

1) MATERIAL: N/A
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: N/A
7) WEIGHT: N/A

- 9) TRIM FLANGES AS REQUIRED TO FIT ASSEMBLY
- 10) POSITION FUEL CAP FLANGE AS SHOWN, ELONGATED HOLE APPROXIMATELY HORIZONTAL
- 11) POSITION FUEL CAP FLANGE SO THAT INNER FACE IS FLUSH WITH INSIDE OF TANK
- 12) WELD PER DART QSI 004
- 13) COAT PAVING SURFACES OF D4008-11 TANK HINGE HALF AND D4463-11 TANK FRONT WITH PROSEAL P/S 890B AND WET INSTALL MS20470AD4-4 RIVETS
- 14) DOME SEAL ALL BUCKED ENDS OF RIVETS WITH PROSEAL P/S 890B

RELEASE
2015-06-16

DESIGN	ML	DART AEROSPACE LTD	
DRAWN	CC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AP	DRAWING NO.	REV. H
MFG. APPR.	DD	D4464	SHEET 5 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	15.02.06	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRINTED AND REPRODUCED HEREON IN FULLY COMPLIANCE WITH THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32321**

Purchase Order Date 5/10/2016

PO Print Date 5/12/2016

Page Number 4 of 5

Order From :
SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

VC-SKY001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-678-5636

Ship To Contact
Ship To Phone
Ship Via: Delivered
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Total: \$0.00

9	144467	D350-748-203 CROSSTUBE	5/12/2016	1.00	\$0.00	\$0.00
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Yes
5/12/2016

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Line Total: \$0.00

10	144817	D3011-1 RAPPEL SLIDE BAR	5/12/2016	6.00	\$0.00	\$0.00
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Yes
5/12/2016

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

Line Total: \$0.00

11	144493	D4464-041 FUEL TANK	5/12/2016	1.00	\$0.00	\$0.00
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Yes
5/12/2016

LIQUID PENETRANT INSPECTION AS PER QSI 038 OR
LPI AS PER ASTM 1417 LEVEL 2

C216105112

Note:

5/12/2016

**skyservice****Work Order Traveler**
Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO28223	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: 32321
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT ON 8 CROSSTUBES, 1 FUEL TANK & 6 RAPPEL SLIDE BARS AS PER PO32321

1 FUEL TANK ASSY, ITEM ID# D4464-041, WORK ORDER ID# 144493

6 RAPPEL SLIDE BARS, ITEM ID# D3011-1, WORK ORDER ID# 144817

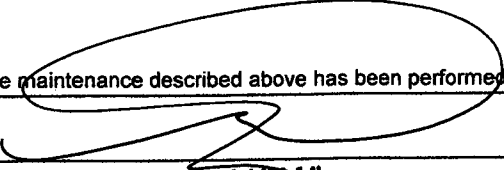
3 STAINLESS STEEL AFT CROSSTUBES, ITEM ID# D350-748-203, WORK ORDER ID# 144465, 144466, 144467

3 STAINLESS STEEL FWD CROSSTUBES, ITEM ID# D350-748-103, WORK ORDER ID# 144404, 144405, 144406

2 FWD CROSSTUBES, ITEM ID# D212-664-101, WORK ORDER ID# 145389, 145390

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-13 NO CRACK FOUND PEN. ZL-56, B#14M046, UV M-20141, CLEANER SKC-S #14H01K, DEV. 13M25K						MAY 11 2016	 
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp 	Date: MAY 11 2016
Name: RAFIK MELIKHAN		